



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,158	08/21/2003	Yuh-Shen Song	7443-101	1808

167 7590 09/20/2005  
FULBRIGHT AND JAWORSKI LLP  
555 S. FLOWER STREET, 41ST FLOOR  
LOS ANGELES, CA 90071

EXAMINER

KRAMER, JAMES A

ART UNIT PAPER NUMBER

3627

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/647,158

Applicant(s)

SONG ET AL.

Examiner

James A. Kramer

Art Unit

3627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wheeler et al. in view of Official Notice.

Wheeler et al. teaches a method of managing account through account-based digital signatures (ABDS). One specific embodiment of the method of Wheeler et al. includes a point of sale transaction using a financial institution account. In particular a user has a device in the form of a card. A point of sale card reader includes an alphanumeric keypad, a display 6054, and, in this case, a thumbprint reader. The point of sale card reader is in communication via data connector with a merchant cash register/terminal. The point of sale card reader is also in communication with a standard financial network, which is in communication with and has the capability of correctly routing communications between merchants and various financial institutions, for example, a bank, savings and loan, credit card company, and the like. Accounts maintained with the financial institutions are associated with account records maintained in one or more account databases. In this example, financial institution maintains a banking or credit card account on behalf of the authorized user of the card. It is also assumed, in this example, that the card is associated with the account of the authorized user of the card in account database.

With particular regard to Wheeler et al. FIG. 62, a purchaser initiates (Step 6202) a transaction with a merchant when the purchaser requests to pay for an item at the merchant cash register/terminal. The merchant "rings up" (Step 6204) the item on the merchant cash register/terminal and the total balance due is displayed to the purchaser. To pay, the purchaser inserts (Step 6206) the card into the point of sale card reader (or brings the card into proximity to the card reader if both the card reader and the card are equipped for contactless proximity communications in accordance with ISO/IEC Standard 14443, which is incorporated herein by reference). (reading embedded identification information by the POS device from the machine-readable identification card in the possession of the purported payer. Examiner notes here that this also teaches the limitations of claim 21, wireless data transmission device incorporated into the identification card and POS device)

Next, the merchant cash register/terminal transmits (Step 6210) the balance due to the point of sale card reader via a data connector. The point of sale card reader displays (Step 6212) the balance due on display. Preferably, the point of sale card reader retrieves (Step 6214) a list of all available (or at least the two to five primary) payment accounts maintained in memory on the card and displays (Step 6216) them for selection by the purchaser. If there is more than one account from which to choose, the purchaser then selects (Step 6218) one of the listed accounts (or a plurality of accounts if the amount of the purchase is going to be split between or among more than one account) (identifying the financial institution and the specific account at the institution based on the financial instrument used in the transaction). The display prompts (Step 6220) the purchaser to provide Factor B and C entity authentication information, such as a PIN and right thumbprint, using the alphanumeric keypad and thumbprint scanner --but only if he

Art Unit: 3627

approves of the proposed transaction (including amount of the purchase and the use of the selected account(s) for payment). Once the PIN and thumbprint have been input, the point of sale card reader transmits (Step 6222) the PIN and digitized version of the thumbprint to the card. The card reader next transmits (Step 6224) data representing the message to the card for digital signature.

In this regard, upon receipt of data representing the message, the card originates (Step 6226) a digital signature for the message by first calculating a hash value for the data and then encrypting the hash value using the private key retained within the card. The card then outputs (Step 6228) the digital signature, which is received by the point of sale card reader. The point of sale card reader then transmits (Step 6230) the message and the digital signature therefor in an EC to the financial institution (via financial a communications network) and waits (Step 6232) for a response from the financial institution. In this case, the EC is used for transaction authentication purposes. (Examiner notes this represents sending the payer's identification information, the specified financial institution, account information and transaction details to a VPC through networks.)

With reference to FIG. 63, after the financial network has correctly routed the EC, it is received (Step 6302) by the financial institution from the point of sale card reader. The financial institution then retrieves (Step 6304) from the account database the public key that is identified by the account number. Using this public key, the financial institution attempts to authenticate (Step 6306) the message. If the message does not authenticate (in Step 6308), then the financial institution responds (Step 6310) to the merchant (via financial network and point of sale card reader) with a rejection of the message. Such a response may indicate the reason for the

Art Unit: 3627

rejection. If the message authenticates (in Step 6308), then the financial institution concludes that the message, in fact, came from the person possessing the correct card associated with the identified account number--(i.e., Factor A Entity Authentication is obtained). The financial institution then determines (Step 6312) whether or not the Factor B and C entity authentication information (e.g., PIN and thumbprint) provided is sufficient for further processing of the specific message. If not, then the financial institution responds (Step 6310) to the merchant (via financial network and point of sale card reader) with a rejection of the message. Such a response may indicate the reason for the rejection, if desired. If the entity authentication is sufficient (in Step 6312), then the financial institution proceeds with further processing (discussed below) of the message. (This represents verifying that the embedded identification information read by the POS device matches the account holder information for the identified account stored in a remote database) (Examiner further notes that Factor B represents prompting payer to input into the POS device an additional item of personal information, personal identification number, stored in the remote database. Also Factor C, represents biometric information including fingerprint.)

In the present example, further processing of the message includes a determination (Step 6314) as to whether the instruction (i1) is capable of being performed. If it is not possible to execute the instruction (i1), then the financial institution responds (Step 6310) with a rejection of the message. For example, even though the message authenticated, the purchaser may not have enough money or credit associated with the account for the financial institution to approve the transaction. Thus, making such a determination typically involves accessing the relevant portion(s) of the account record and confirming that the funds are available. If the determination (in Step 6314) is negative, then the financial institution responds (Step 6310) to the merchant

Art Unit: 3627

(via financial network and point of sale card reader) with a rejection of the message. Again, such a response may indicate the reason for the rejection. (Examiner notes this represents verifying that the identified account has sufficient funds to cover a transaction amount specified by the payer).

If the determination in Step 6314 is positive, then the financial institution performs (Step 6316) the instruction (i1). In this example, the instruction (i1) from the purchaser is to pay the merchant the specified amount of funds from the specified account for the purchase of the product. Thus, performing (Step 6316) the instruction typically involves accessing the relevant portion(s) of the account record, initiating transfer of the specified amount of funds from the account of the purchaser to the merchant (in known manner), and debiting/updating the account record accordingly. (Examiner notes that this represents if the verification of both identity of the payer and the amount of transaction is successful, causing the specified amount to be electronically transferred from the specified payer's account to the designated payee). The financial institution also notifies (Step 6318) the merchant (via financial network and point of sale card reader) of the approval of the transaction.

Referring back to FIG. 62, once the merchant receives the response from the financial institution, the determination in Step 6232 is positive. The merchant next determines (Step 6234) whether the response is an approval or rejection of the transaction. If the financial institution does not approve the transaction, then the merchant notifies (Step 6236) the purchaser that the transaction was not approved. On the other hand, if the determination in Step 6234 is positive, then the merchant completes the sale (Step 6238) by giving the purchaser the merchandise and a receipt.

Art Unit: 3627

As can be seen from the above example, the EC from the purchaser acts as a transaction authentication for the requested purchase and payment method even though it may, in fact, pass through many "hands" (via the financial network) before it finally reaches the financial institution for processing and authentication.

(The above reference can be found on column 58; line 39 through column 61; line 20)

Examiner further notes that conventionally personal identification information is prestored within a device and must be input into a device before it will operate (column 16; lines 60-65). Examiner notes that this represents the ability of the invention of Wheeler et al. to prompt the user to input into the POS device an additional item of personal information embedded in the identification card but not stored in the remote database and verifying the additional information provided matches the information embedded in the card. Examiner notes once again that Wheeler et al. teaches that this personal information can be a personal identification number, biometric data or both (see column 17; lines 13-25).

Examiner further notes that Wheeler et al. teaches use of the method with an ATM machine (e.g. column 24; lines 10-20). Examiner notes that this represents the VPC system is established exclusively for one financial institution to provide services to the customers of that financial institution.

Wheeler et al. teaches after entry of credit card information, displaying a prompt for the purchaser to provide Factor B and C entity authentication information, such as PIN and right thumbprint (see column 59, lines 53-57). Wheeler et al. does not specifically teach Factor B or C entity authentication information being an embedded government issue identification card.



Art Unit: 3627

However, Wheeler et al. does teach embedding personal information within a government issue identification card (see for example column 15, lines 30-35). Furthermore, Applicant discloses as old and well known that many merchants require a payer (purchaser) to show a photo identification card at a POS for additional fraud protection (see Specification page 5, paragraph 17, lines 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention modify either Factor B or C of Wheeler et al. to be a government issue photo id with embedded identification information, as taught by the embodiment of Wheeler et al. found on column 15, lines 30-35 in order to provide the old and well known method of fraud protection discloses by Applicant.

Wheeler et al. as described in detail above does not teach the user device being a check and where the POS device is able to read account and user information from the MICR line on the check. Examiner takes Official Notice that MICR lines on checks are old and well known in the art for communication the account information of the check user. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Wheeler et al. to include checks and to incorporate the account information of the debit card of Wheeler et al. in the MICR line of checks. One of ordinary skill in the art would have been motivated to combine the art as discussed above in order to allow user to pay with checks.

Wheeler et al. does not specifically teach that the POS terminal is a self service terminal.

Examiner notes that self service terminals are old and well known in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the

Art Unit: 3627

POS terminal of Wheeler et al. to be a self service terminal in order to make the check out process more efficient.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Kramer whose telephone number is (571) 272 6783. The examiner can normally be reached on Monday - Friday (8AM - 5PM).

Art Unit: 3627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on (571) 272 6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Kramer  
Examiner  
Art Unit 3627

jak

*afischer 9/14/05*  
**ANDREW FISCHER**  
**PRIMARY EXAMINER**